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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,630	10/03/2000	Ian J. Forster	4579-083	6785

27820 7590 07/30/2004

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EXAMINER
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YUN, EUGENE

ART UNIT	PAPER NUMBER
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2682

19

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/678,630

Applicant(s)

FORSTER, IAN J.

Examiner

Eugene Yun

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 37-42 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-28 is/are allowed.
- 6) ☒ Claim(s) 29-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____  | 6) <input type="checkbox"/> Other: ____                                     |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/9/2004 has been entered.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 29, 31, 32, and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Greeff et al. (US 6,075,973).

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Referring to Claim 29, Greeff teaches a wireless communication device comprising:

a wireless communication electronics (see fig. 1);

an asymmetrical dipole antenna 46 (fig. 1) operatively connected to said wireless communication electronics, said dipole antenna operative at a first frequency; and at least one loop antenna 44 (fig. 1) capacitively coupled to said dipole antenna and operative at a second frequency (see positioning of antennas in fig. 1); said wireless communication electronics receives a signal from a remotely positioned interrogator 26 (fig. 1) through one of said antennas when said remotely positioned interrogator generates a frequency signal that is an operating frequency of said one of said antennas (see col. 3, lines 43-53).

Referring to Claims 31 and 32, Greeff also teaches a slotted ground plane 12 (fig. 1) operative with a dipole antenna 46 (fig. 1).

Referring to Claim 34, Greeff also teaches said one loop antenna operative at a low frequency (see fig. 1 noting that the device is a short range communications device).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greeff in view of Carr (US 4,433,336 "IDS").

Referring to Claim 36, Greeff does not teach said at least one loop antenna comprising a nested part to increase bandwidth reception on said at least one loop antenna. Carr teaches said at least one loop antenna comprising a nested part 13 and 14 (fig. 1) to increase bandwidth reception on said at least one loop antenna. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Carr to said device of Greeff in order to have a multi-frequency antenna radiate better omnidirectionally.

6. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greeff in view of Gouin (US 6,211,846).

Referring to Claim 30, Greeff does not teach a second loop antenna capacitively coupled to said dipole antenna and operative at a third frequency. Gouin teaches a second loop antenna 3 (fig. 1) capacitively coupled to said dipole antenna and operative at a third frequency (see positioning of antennas in fig. 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Gouin to said device of Greeff in order to more easily detect the location of a transponder.

7. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greeff and Carr in view of Proctor et al. (US 6,346,922).

Referring to Claim 33, the combination of Greeff and Carr does not teach the dipole antenna operative at a microwave frequency. Proctor teaches the dipole antenna operative at a microwave frequency (see col. 2, lines 57-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Proctor to said device of Greeff in order to reduce the dependency of the proximity of other objects.

8. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greeff and Carr in view of Ehlers (US 4,727,598).

The combination of Greeff and Carr does not teach a second loop antenna operative at a UHF frequency and capacitively coupled to said dipole antenna. Ehlers teaches a second loop antenna operative at a UHF frequency 32 (fig. 1) and capacitively coupled to said dipole antenna (see 30 and 32 of fig. 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Ehlers to said device of Greeff in order to reduce interference in a multi-frequency antenna.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 29-36 have been considered but are moot in view of the new ground(s) of rejection.

### ***Allowable Subject Matter***

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10. Claims 1-28 are allowed.

Regarding Clams 1, 14, 21, and 26, Greeff, Carr, Ehlers, Proctor, and Gouin do not teach, alone nor in combination, communication electronics comprising a first loop antenna, second loop antenna and a pole antenna in which each antenna operates at three different frequencies in combination with an interrogator generating a frequency signal that is at an operating frequency of one of said antennas.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Yun whose telephone number is (703) 305-2689. The examiner can normally be reached on 8:30am-5:30pm Alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (703) 308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
VIVIAN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

Eugene Yun  
Examiner  
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